

**Modulbezeichnung:** **Advanced medical imaging for Clinical Navigation using Smart Devices (AdvancedMI)** **5 ECTS**  
(Advanced medical imaging for Clinical Navigation using Smart Devices)

Modulverantwortliche/r: Björn Heismann  
Lehrende: Björn Heismann, N.N.

Startsemester: WS 2018/2019      Dauer: 1 Semester      Turnus: halbjährlich (WS+SS)  
Präsenzzeit: 60 Std.      Eigenstudium: 90 Std.      Sprache:

**Lehrveranstaltungen:**

Advanced medical imaging for Clinical Navigation using Smart Devices (WS 2018/2019, Seminar, 2 SWS, Björn Heismann et al.)

**Inhalt:**

You will be part of an interdisciplinary project team challenged to prototype a novel (wearable) device for the emerging field of digital indoor navigation. You and your team will have the chance to develop your ideas and shape patient care of the future. Experts from industry, healthcare and research will give you valuable feedback and support you to bring your idea to the next level.

What could be learned and what are the deliverables?:

Stage 1:

- Challenge introduction and lectures on state-of-the-art methodology, algorithms and sensors used for indoor navigation
- Project management workshop (e.g. design thinking approach, prioritizing exercise & introduction to useful PM tools)
- Clinical needs screening and interviews with healthcare experts
- Ideation process
- Development of concrete hardware/software design specifications. You will be guided in your team and project to set realistic milestones and iteratively prioritize your technical implementation.

Stage 2:

- Data capturing
- Rapid prototyping
- Feedback round with potential users and customers

Stage 3:

- Embracing user feedback and final hacksprint
- Prototype pitch with experts from healthcare and industry

**Verwendbarkeit des Moduls / Einpassung in den Musterstudienplan:**

Das Modul ist im Kontext der folgenden Studienfächer/Vertiefungsrichtungen verwendbar:

[1] **Medizintechnik (Master of Science)**

(Po-Vers. 2018w | TechFak | Medizintechnik (Master of Science) | Grundcurriculum für alle Studienrichtungen | Hauptseminar Medizintechnik)

**Studien-/Prüfungsleistungen:**

Advanced medical imaging for Clinical Navigation using Smart Devices (Prüfungsnummer: 685184)

Prüfungsleistung, Seminarleistung

Anteil an der Berechnung der Modulnote: 100%

weitere Erläuterungen:

Ausarbeitung und Vortrag

Erstablegung: WS 2018/2019, 1. Wdh.: SS 2019

1. Prüfer: Andreas Maier

**Organisatorisches:**

Master-Studenten MT Semester 1-3 (und andere interessierte Fachrichtungen)